

## SEQUENCE LISTING

<110> Jones, David HA  
Bout, Abraham

<120> Efficient Production of IgA in Recombinant Mammalian Cells

<130> 2578-6077

<150> US 09/549,463

<151> 2000-04-14

<150> US 60/129,452

<151> 1999-04-15

<160> 8

<170> PatentIn version 3.2

<210> 1

<211> 2022

<212> DNA

<213> Artificial

<220>

<223> Genomic DNA encoding heavy chain of anti-EpCAM IgA

<220>

<221> misc\_feature

<222> (1)..(3)

<223> Start codon

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<222> (2020)..(2022)

<223> Stop codon

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gccaggtgc agctggtgca gtctggggct gaggtgaaga agcctgggtc ctcggtgagg 120

gtctcctgca aggttcttgg aggcaccttc agcagctatg ctatcagctg ggtgcgacag 180

gccctggac aagggttga gtgatgga gggatcatcc ctatcttgg tacagcaaac 240  
 tacgcacaga agttccaggg cagagtcacg attaccgcg acgaatccac gagcacagcc 300  
 tacatggagc tgagcagcct gagatctgag gacacggctg tgtattactg tgcaagagac 360  
 ccgtttcttc actattgggg ccaaggtacc ctggtcaccg tctcgacagg tgagtgcggc 420  
 cgctctgtgc tgggttctc cagtatagag gagaggcagg cacagactgt cctctgggg 480  
 acatggcatg agggccgct cctcacagtg cattctgtgt tccagcatcc ccgaccagcc 540  
 ccaaggtctt cccgtgagc ctctgcagca ccagccaga tgggaacgtg gtcatgcct 600  
 gcctgtcca gggttcttc cccaggagc cactcagtgt gacctggagc gaaagcggac 660  
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 cgagcagcca gctgaccctg ccggccacac agtccttagc cggcaagtc gtgacatgcc 780  
 acgtgaagca ctacacgaat ccagccagg atgtgactgt gccctgccca ggtcagaggg 840  
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 ccgtggcct tcacacagaa gaccatcgac cgcttggcgg gtaaaccac ccatgtcaat 1980  
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<220>  
 <223> Genomic DNA encoding light chain of anti-EpCAM IgA

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 <222> (1)..(3)  
 <223> Start Codon

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 gctgaaattg agctcaactca gctccaactc tccctgcccg tcacccttgg agagccggcc 120  
 tccatctcct gcaggcttag tcagagcctc ctgcatagta atggatacaa ctatttgat 180  
 tggtaacctgc agaagccagg gcagtctcca cagctcctga tctatttggg ttctaategg 240

gcctccgggg tccctgacag gttcagtggc agtggatcag gcacagattt tacactgaaa 300  
 atcagcagag tggaggctga ggatgttggg gtttattact gcatgcaagc tctacaaact 360  
 ttactttcg gccctgggac caaggtggag atcaaacgta agtgcacttt gcggccgcta 420  
 ggaagaaact caaaacatca agattttaaa tacgcttctt ggtctccttg ctataattat 480  
 ctgggataag catgctgttt tctgtctgtc cctaacatgc cctgtgatta tccgcaaaca 540  
 acacacccaa gggcagaact ttgttactta aacaccatcc tgtttgcttc tttcctcagg 600  
 aactgtggct gcaccatctg tcttcatctt cccgccatct gatgagcagt tgaaatctgg 660  
 aactgcctct gttgtgtgcc tgctgaataa cttctatccc agagaggcca agtacagtg 720  
 gaaggtggat aacgccctcc aatcgggtaa ctcccaggag agtgtcacag agcaggacag 780  
 caaggacagc acctacagcc tcagcagcac cctgacgctg agcaaagcag actacgagaa 840  
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 <223> Amino acid sequence anti-EpCAM IgA heavy chain

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 <222> (1)..(21)  
 <223> leader peptide

<220>  
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 <222> (22)..(136)  
 <223> VH Region

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<222> (137)..(238)

<223> CH1 Region

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<222> (239)..(359)

<223> CH2 Region

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<222> (360)..(489)

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Glu Phe Ser Met Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val  
20 25 30

Lys Lys Pro Gly Ser Ser Val Arg Val Ser Cys Lys Ala Ser Gly Gly  
35 40 45

Thr Phe Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln  
50 55 60

Gly Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn  
65 70 75 80

Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser  
85 90 95

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr  
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Pro Phe Leu His Tyr Trp Gly Gln  
115 120 125

Gly Thr Leu Val Thr Val Ser Thr Ala Ser Pro Thr Ser Pro Lys Val  
130 135 140

Phe Pro Leu Ser Leu Cys Ser Thr Gln Pro Asp Gly Asn Val Val Ile

145            150            155            160  
 Ala Cys Leu Val Gln Gly Phe Phe Pro Gln Glu Pro Leu Ser Val Thr  
           165            170            175  
 Trp Ser Glu Ser Gly Gln Gly Val Thr Ala Arg Asn Phe Pro Pro Ser  
           180            185            190  
 Gln Asp Ala Ser Gly Asp Leu Tyr Thr Thr Ser Ser Gln Leu Thr Leu  
           195            200            205  
 Pro Ala Thr Gln Cys Leu Ala Gly Lys Ser Val Thr Cys His Val Lys  
           210            215            220  
 His Tyr Thr Asn Pro Ser Gln Asp Val Thr Val Pro Cys Pro Val Pro  
 225            230            235            240  
 Ser Thr Pro Pro Thr Pro Ser Pro Ser Thr Pro Pro Thr Pro Ser Pro  
           245            250            255  
 Ser Cys Cys His Pro Arg Leu Ser Leu His Arg Pro Ala Leu Glu Asp  
           260            265            270  
 Leu Leu Leu Gly Ser Glu Ala Asn Leu Thr Cys Thr Leu Thr Gly Leu  
           275            280            285  
 Arg Asp Ala Ser Gly Val Thr Phe Thr Trp Thr Pro Ser Ser Gly Lys  
           290            295            300  
 Ser Ala Val Gln Gly Pro Pro Asp Arg Asp Leu Cys Gly Cys Tyr Ser  
 305            310            315            320  
 Val Ser Ser Val Leu Ser Gly Cys Ala Glu Pro Trp Asn His Gly Lys  
           325            330            335  
 Thr Phe Thr Cys Thr Ala Ala Tyr Pro Glu Ser Lys Thr Pro Leu Thr  
           340            345            350  
 Ala Thr Leu Ser Lys Ser Gly Asn Thr Phe Arg Pro Glu Val His Leu  
           355            360            365  
 Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu Asn Glu Leu Val Thr Leu  
           370            375            380

Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys Asp Val Leu Val Arg Trp  
385                    390                    395                    400

Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu Lys Tyr Leu Thr Trp Ala  
                  405                    410                    415

Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr Thr Phe Ala Val Thr Ser  
                  420                    425                    430

Ile Leu Arg Val Ala Ala Glu Asp Trp Lys Lys Gly Asp Thr Phe Ser  
                  435                    440                    445

Cys Met Val Gly His Glu Ala Leu Pro Leu Ala Phe Thr Gln Lys Thr  
                  450                    455                    460

Ile Asp Arg Leu Ala Gly Lys Pro Thr His Val Asn Val Ser Val Val  
465                    470                    475                    480

Met Ala Glu Val Asp Gly Thr Cys Tyr  
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<212> PRT

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<223> amino acid sequence anti-EpCAM IgA light chain

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<222> (1)..(21)

<223> leader peptide

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<222> (22)..(132)

<223> VL region

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<222> (133)..(239)

<223> CL region

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Glu Phe Ser Met Ala Glu Ile Glu Leu Thr Gln Ser Pro Leu Ser Leu  
20 25 30

Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln  
35 40 45

Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln  
50 55 60

Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg  
65 70 75 80

Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp  
85 90 95

Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr  
100 105 110

Tyr Cys Met Gln Ala Leu Gln Thr Phe Thr Phe Gly Pro Gly Thr Lys  
115 120 125

Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro  
130 135 140

Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu  
145 150 155 160

Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp  
165 170 175



Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp  
180 185 190

Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys  
195 200 205

Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln  
210 215 220

Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys  
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<212> DNA

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<223> E001 forward primer for amplification of light chain

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<211> 32

<212> DNA

<213> Artificial

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<223> E002 reverse primer for amplification of light chain

<400> 6

ccgggttaac taacctctc ccctgttgaa gc 32

<210> 7

<211> 39

<212> DNA

<213> Artificial

<220>

<223> E003 forward primer for amplification of heavy chain

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<210> 8

<211> 29

<212> DNA

<213> Artificial

<220>

<223> P01 reverse primer for amplification of heavy chain

<400> 8

ggaccgctag ctcagtagca ggtgccgac 29